

No. 175-18

1978

C. 1

JAN 24 1979

DOVE



by Chuck Fergus

Division of Information and Education
Pennsylvania Game Commission

In August, mourning doves seem to be everywhere: we see their slim, gray-brown forms on telephone lines, in back yards, farm fields, and weedy flats along highways. By late September, their swift, direct flight takes them overhead on whistling wings. They flash south in bands of 10 and 20, belly plumage catching the fading gold of late summer sunlight, and when the great masses of doves begin to depart, autumn is on its way.

The mourning dove is a member of the family Columbidae and is closely related to the rock dove (domestic pigeon). It breeds across all of the lower 48 United States, much of Mexico, the southern and western edges of Canada, and into Alaska; it winters from Massachusetts, southern Michigan, Nebraska, and California south to Panama. Colloquial names are turtle dove, wild pigeon, and wild dove.

Biology

An adult dove weighs 3½-5 ounces and is 10-13 inches in length from beak to tail tip. A dove is smaller and more

streamlined than a pigeon, with a long, pointed tail and tapering wings that spread 17-19 inches. The neck is long, the head small, and the bill slender, short, and black.

A dove's wings are gray, and its back, rump, and middle tailfeathers are grayish olive-brown. The lateral tailfeathers are bluish-gray, with black crossbars and white tips which flash when the bird is flying. The undersides of the body are pale buff; the head is buffy-brown with a black spot behind the eye and pale, blue skin visible around the eye. Legs and feet are reddish. Both sexes have similar plumage, although the male's colors are somewhat brighter and more iridescent, especially the head and breast.

The species' call is distinctive, and earns the "mourning" half of this bird's name. The call is a hollow, plaintive *ooah*, *cooo*, *coo*, *coo*. Depending on distance, only the last three notes may be audible. This call is made by males trying to attract females. After mating, it serves to bond the pair and ward off other males. While females may coo in response, their calls are weak and scarcely audible. Another distinctive sound identifies the mourning dove: a whistling produced by the wings of a bird in flight.

Doves are beneficial to man; they eat seeds of pest plants and generally do not damage crops. Foods are weed seeds and waste grains (these two items together may make up 98 percent of a dove's diet), a few insects, snails, and slugs. Doves don't cling to stalks or scratch for food--they pick seeds off the

ground. Favored weeds are croton, foxtail, smartweed, ragweed, and seeds of various grasses and sedges. Grains eaten include corn, wheat, oats, barley, rye, and buckwheat left on the ground by mechanical harvesting methods.

Seeds of plants such as croton and foxtail grass are very small, and single doves have been found with literally thousands (7,500 croton, 6,400 foxtail grass) in their crops. Grit aids in grinding up food, and it may be taken in the form of gravel, cinders, glass, or any other small, hard material. Doves seen along roadsides often are picking up grit. In addition to food and grit, doves need water every day. Ordinarily they fly to a stream, creek, or pond early in the morning and again in the evening.

Small bands of doves begin to return to Pennsylvania in early March, with arrivals peaking from mid-March through April. Studies indicate that most birds returning to Pennsylvania to breed have wintered along the southeastern coast—in North and South Carolina, Georgia, and Florida.

The male selects a nesting territory and defends it by flying at and pecking other males. He coos to attract a female and performs a nuptial flight in a large oval pattern. The pair mate and select a nest site; together they build a nest over the next 4-6 days, sometimes using a vacant catbird, robin, or grackle nest as a platform. Dove nests are built of sticks, with little if any lining material. Eggs may be visible from the ground through the loosely woven twigs, but the nests are surprisingly strong for their frail appearance. They're built as high up as 50 feet (usually 10-25 feet) in the crotch of a branch, typically in conifers; or they may be constructed in tangles of shrubs or vines, or even on the ground.

Two or three days after the nest is finished, the female lays her first egg. A second egg comes two days later, and incubation begins at once. (On rare occasions, a third egg is laid.) Eggs are oval to elliptical, glossy, white, and unmarked. Incubation and brooding are shared; the male sits on the eggs during the day, the female at night. After 14-15 days, eggs hatch. The nestlings, also called squabs, are altricial: naked, blind, and completely dependent on their parents.

For the first few days, squabs are fed a mixture of small seeds and a nutritious liquid called "pigeon's milk," which is secreted by the lining of the adult's crop (the crop is the upper portion of the digestive tract). This milk is a chalky mixture of cells and fluid; both parents feed it to the young by regurgitation. Gradually, seeds begin to compose the bulk of the developing squabs' diet. At 14 days, squabs are fully feathered, fledged, and on their own—and the adults are ready to produce another brood.

The nesting cycle--egg-laying, incubation, and care of squabs until they leave the nest--takes just over one month. Adults make up to five nesting attempts over the course of the summer, finishing in August; about half of the nestings succeed, resulting in an average of 4-6 young produced by each adult pair.



Weather can be an important mortality factor. Spring and summer storms with high winds blow nests, eggs, and young out of trees; heavy rains and hail may kill adults as well as nestlings. Nest predators include blue jays, starlings, crows, squirrels, snakes, house cats, and others. Adults are preyed on by hawks and owls. Disease, accidents and hunting cut dove numbers further.

Birds of all ages are susceptible to the protozoan disease trichomoniasis (also called dove or canker disease); symptoms are emaciation, diarrhea, and lesions of the crop and esophagus; the disease is usually fatal. Ordinarily, only local populations are hit, but occasionally the disease becomes epizootic and affects many doves over a wide area. There is no known control.

Life expectancy: 70-80 percent of all newly hatched doves do not live one year (i.e., for every 100 hatched in a summer, only 20-30 will live to breed the following summer). If a juvenile survives its first year, the attrition slows: adults have a 50 percent mortality rate. Average annual mortality for a stable population is estimated at 60 percent.

Juveniles grow and complete their feather development for two weeks after leaving the nest; then they gather into small flocks to feed and roost. Migration of all ages is in full swing by mid-September or early October. Flocks of a few to 20 or more birds travel together, flying in the morning, resting and feeding at noon, flying in the afternoon, feeding in the evening, and roosting at night. If the winter weather is not too severe, some birds spend the entire year in Pennsylvania.

Because the mourning dove is a migratory bird, it falls under federal regulations. As with waterfowl, the states set hunting seasons and bag limits within a framework determined by the U.S. Fish and Wildlife Service. Doves have been hunted in Pennsylvania since 1945.

Population

Mourning doves adapt well to man and his activities. In the last 200 years, the dove population has increased greatly--probably as a result of intensified agriculture and expanding suburbs which provide much shrubby nesting habitat. Other practices which decrease the amount or diversity of shrubs and trees, however, may affect doves adversely. Today the dove has the largest range of any game bird, although breeding populations are apparently decreasing slightly.

In Pennsylvania, the dove population peaks in August and September when adults and locally produced young are joined by migrants from farther north. They migrate leisurely, averaging about 15 miles per day.

As with any heavily preyed-upon species, the mourning dove has an extremely high reproductive rate (small but multiple broods); in essence, parent doves don't put all their eggs in the same basket. While dove numbers fluctuate from year to year, there's no evidence that the population is cyclical.

Habitat

The mourning dove is a bird of open woodland edges. Favored habitat includes farm land with scattered trees and shrubs, open woods, evergreen stands, orchards, roadside trees, and suburban gardens. Doves usually avoid dense forests.

Food isn't normally a limiting factor, because doves can subsist on a tremendous variety of seeds and can fly to places where food is adequate. Because they're so mobile and adaptable, there's little need to manage habitat specifically for them. Shelterbelts can be planted for nesting cover (red pine, longleaf pine, norway spruce, and locust trees are suitable), benefitting doves and other wildlife such as songbirds, pheasants, rabbits, quail, etc. Also, millet overseeded in corn provides extra food.

In general, doves concentrate in areas with plentiful weed seeds or waste grain, near trees for roosting and nesting, and within easy flight of a water source. As long as such habitat exists--and right now it is abundant--the mourning dove will continue to be one of our most plentiful and conspicuous wildlife species.

This Wildlife Note is available from the Division
of Information and Education, Pennsylvania Game
Commission, P.O. Box 1567, Harrisburg, Pa. 17120.
An Equal Opportunity Employer

WILDLIFE NOTES AVAILABLE

175-1	Squirrels (Gray, red, fox and flying squirrels)	175-10	Raptors (Goshawks; sharp-shinned, Cooper's, red-tailed, red-shouldered, broad-winged, rough-legged hawks; harrier, peregrine, merlin and kestrel)
175-2	Ruffed Grouse		
175-3	Bobcat	175-11	Otter
175-4	Cottontail Rabbit	175-12	Crows & Ravens
175-5	Red and Gray Foxes	175-13	Woodpeckers
175-6	Woodchuck	175-14	Beaver
175-7	The Varying Hare (Snowshoe Rabbit)	175-15	Bobwhite
175-8	The Night Hunters: Owls (Barn, great horned, snowy, barred, long-eared, short-eared, screech, and saw-whet owls)	175-16	Heron Family
		175-17	Wild Turkey
		175-18	Dove
175-9	Raccoon	175-19	Ring-Necked Pheasant